

DVD ERROR MAPPING SYSTEM BLOCK DIAGRAM

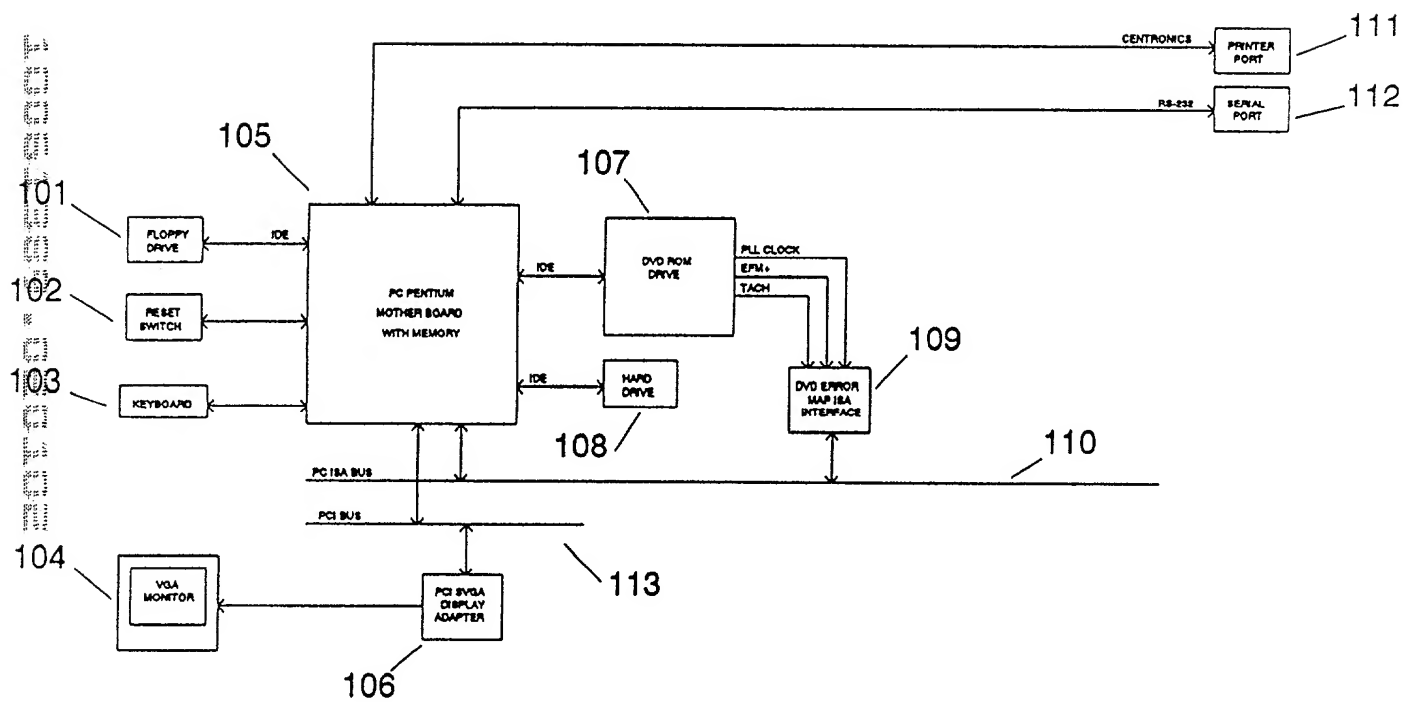
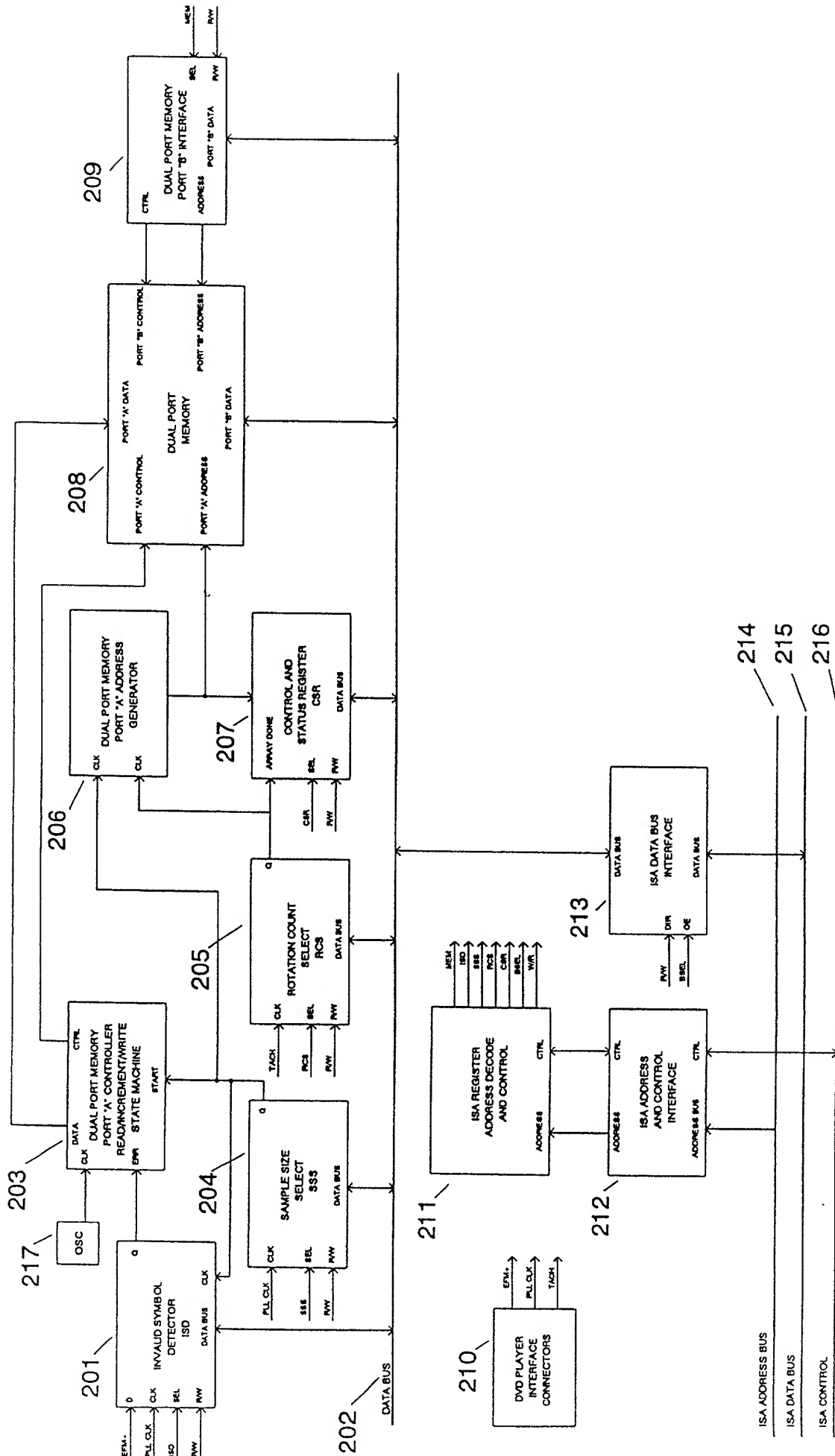


FIG. 1

DVD DIGITAL ERROR MAP ISA HARDWARE INTERFACE BLOCK DIAGRAM



DVD DIGITAL ERROR MAP ISA INTERFACE

INVALID SYMBOL DETECTOR REGISTER BLOCK DIAGRAM

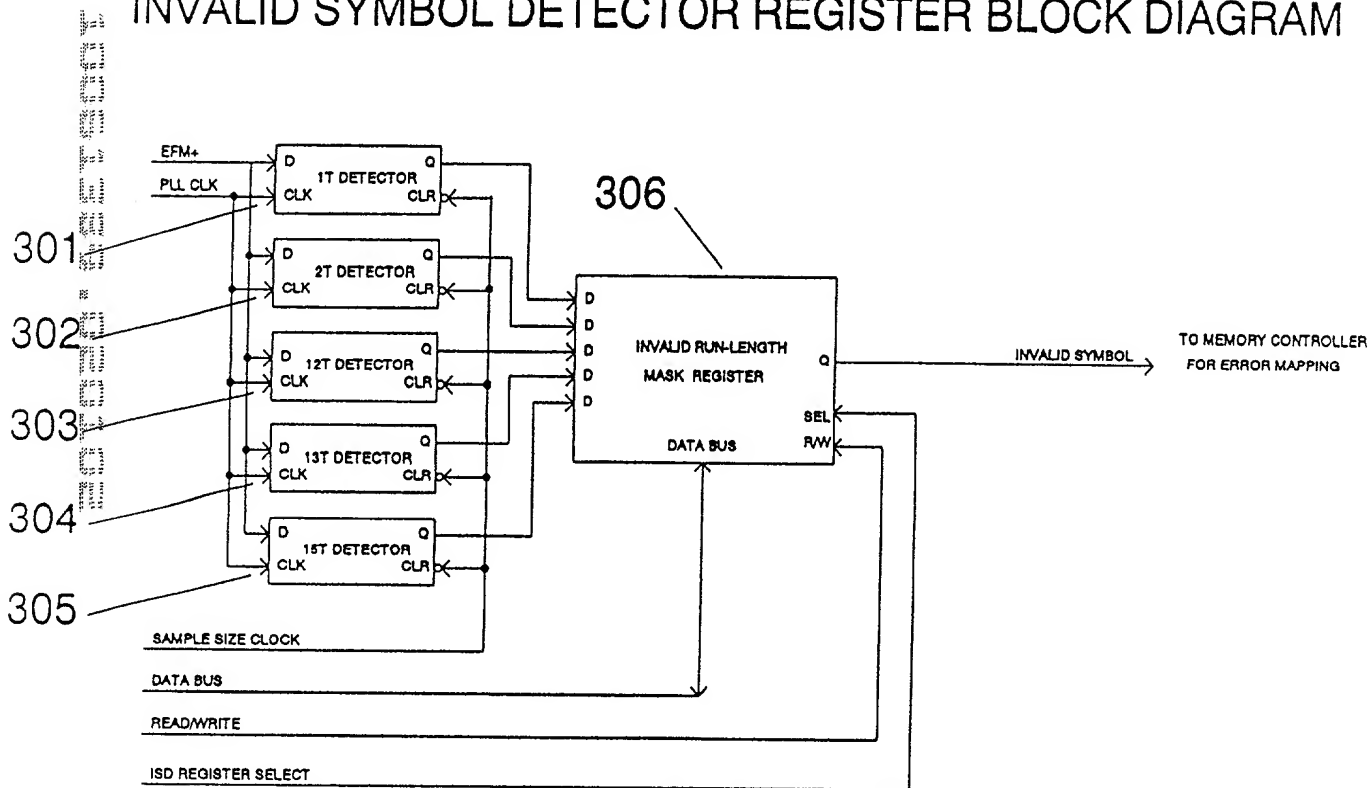
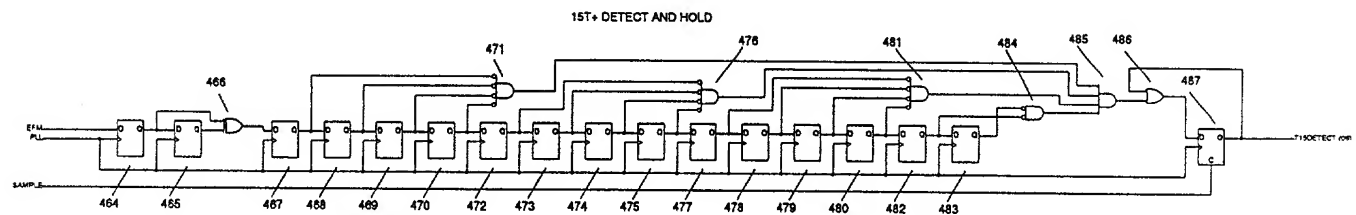
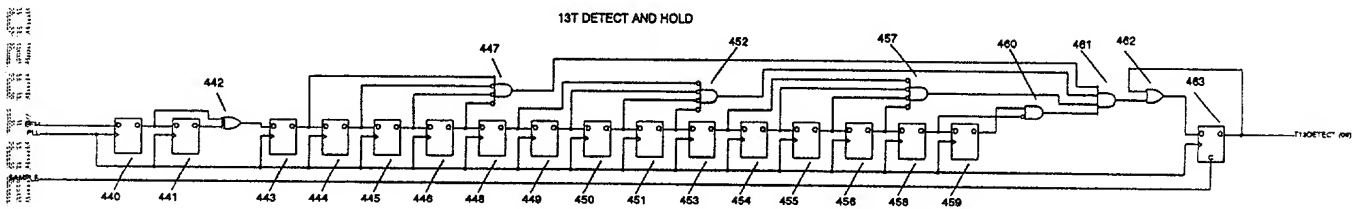
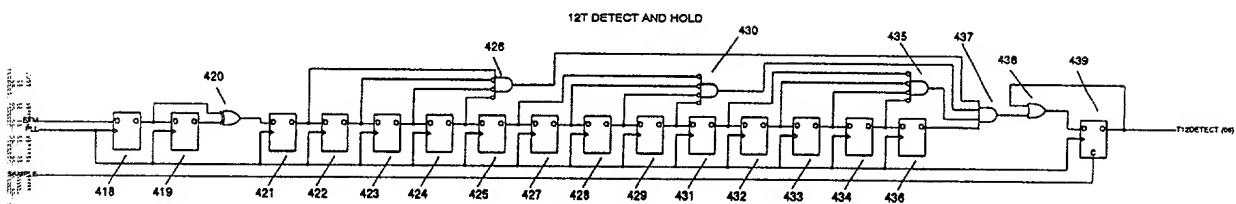
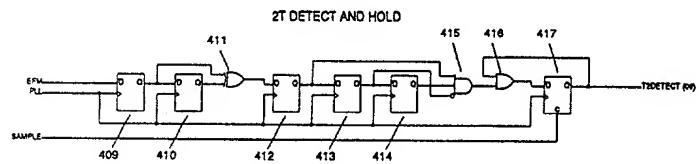
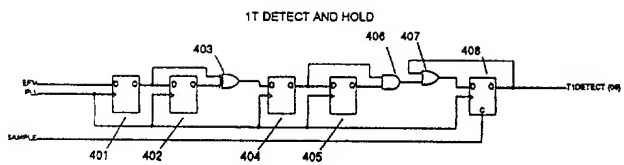
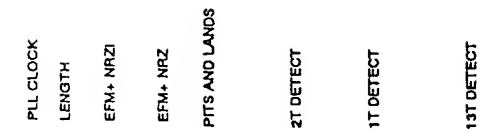


FIG. 3



Cell	Wavelength	Cell	Wavelength	Cell	Wavelength	Cell	Wavelength
1	4000	2	4000	3	4000	4	4000
5	4000	6	4000	7	4000	8	4000
9	4000	10	4000	11	4000	12	4000
13	4000	14	4000	15	4000	16	4000
17	4000	18	4000	19	4000	20	4000
21	4000	22	4000	23	4000	24	4000
25	4000	26	4000	27	4000	28	4000
29	4000	30	4000	31	4000	32	4000
33	4000	34	4000	35	4000	36	4000
37	4000	38	4000	39	4000	40	4000
41	4000	42	4000	43	4000	44	4000
45	4000	46	4000	47	4000	48	4000
49	4000	50	4000	51	4000	52	4000
53	4000	54	4000	55	4000	56	4000
57	4000	58	4000	59	4000	60	4000
61	4000	62	4000	63	4000	64	4000
65	4000	66	4000	67	4000	68	4000
69	4000	70	4000	71	4000	72	4000
73	4000	74	4000	75	4000	76	4000
77	4000	78	4000	79	4000	80	4000
81	4000	82	4000	83	4000	84	4000
85	4000	86	4000	87	4000	88	4000
89	4000	90	4000	91	4000	92	4000
93	4000	94	4000	95	4000	96	4000
97	4000	98	4000	99	4000	100	4000



PLL CLOCK
LENGTH
EFM+ NRZI
EFM+ NRZ
PITS AND LAND
2T DETECT
1T DETECT
13T DETECT

1T, 2T AND 13T INVALID RUN LENGTH DETECT EXAMPLE

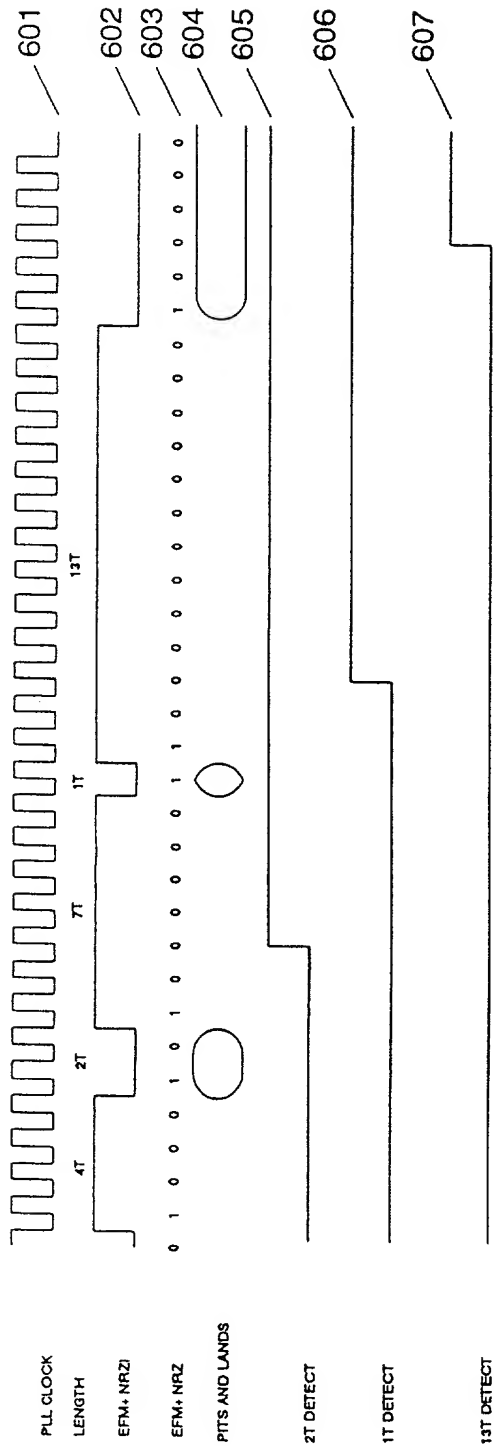


FIG. 6

FROM TACH BIT SET FIG 7a

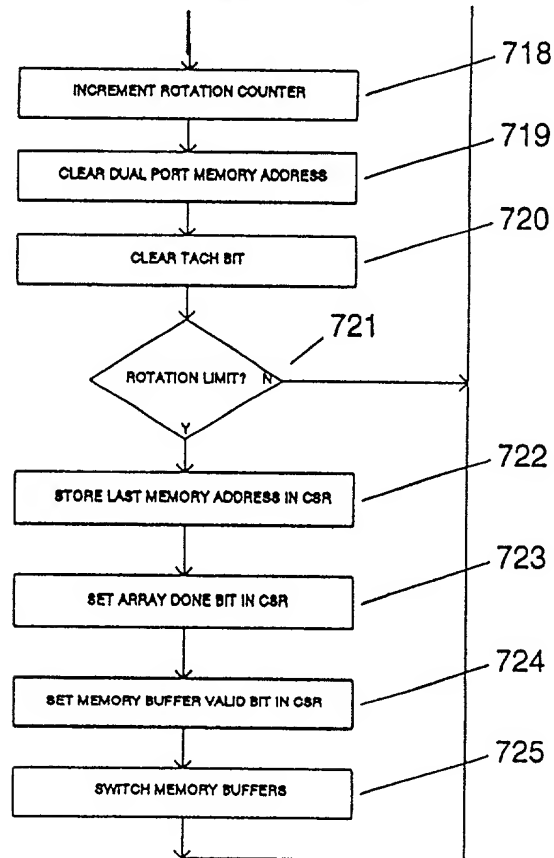
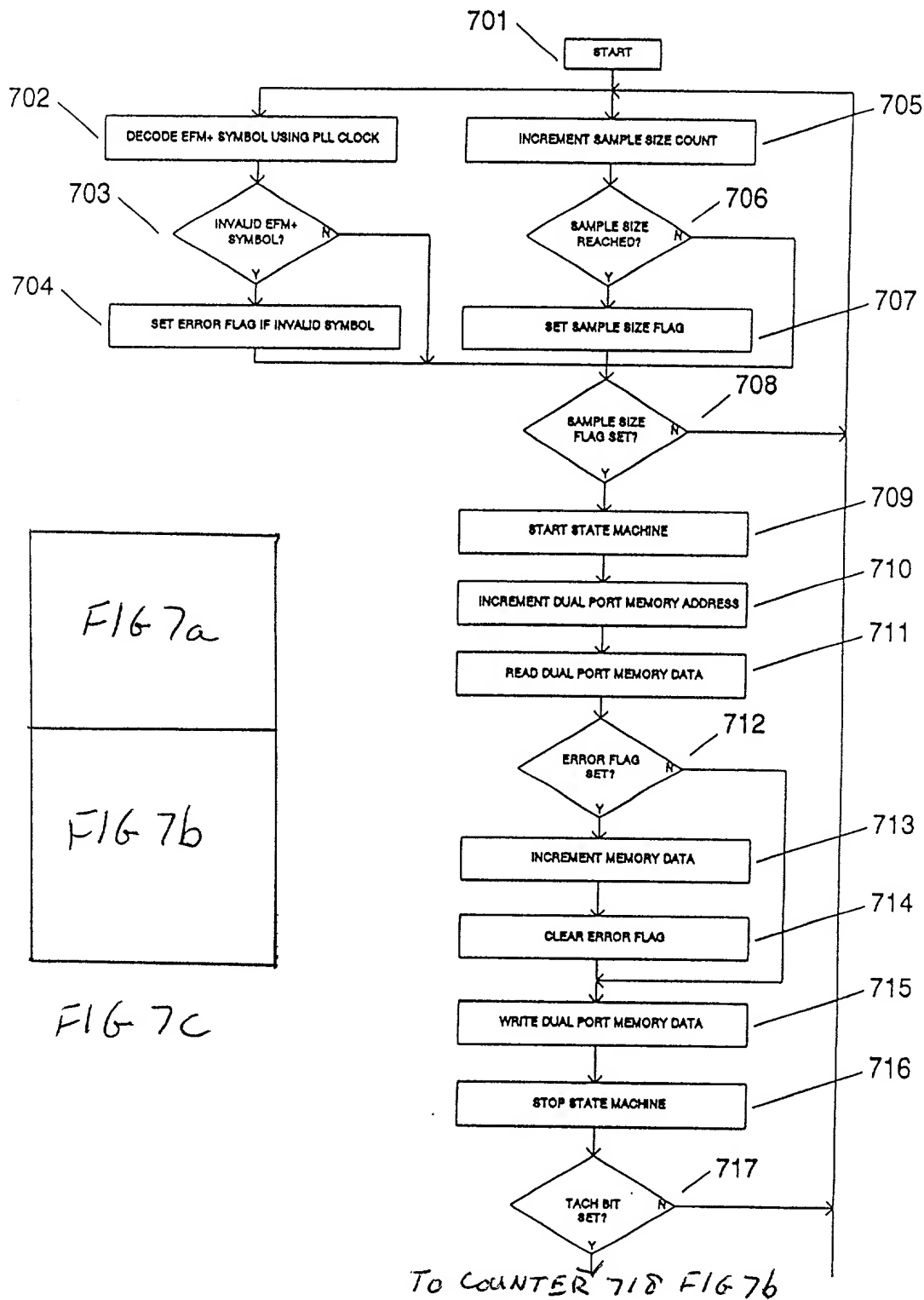


FIG. 7b

ISA HARDWARE FLOW CHART

CREATING ERROR MAP ARRAY



701 START
 702 DECODE EFM+ SYMBOL USING PLL CLOCK
 703 INVALID EFM+ SYMBOL?
 704 SET ERROR FLAG IF INVALID SYMBOL
 705 INCREMENT SAMPLE SIZE COUNT
 706 SAMPLE SIZE REACHED?
 707 SET SAMPLE SIZE FLAG
 708 SAMPLE SIZE FLAG SET?
 709 START STATE MACHINE
 710 INCREMENT DUAL PORT MEMORY ADDRESS
 711 READ DUAL PORT MEMORY DATA
 712 ERROR FLAG SET?
 713 INCREMENT MEMORY DATA
 714 CLEAR ERROR FLAG
 715 WRITE DUAL PORT MEMORY DATA
 716 STOP STATE MACHINE
 717 TACH BIT SET?
 718 TO COUNTER 718 FIG 76

DVD DIGITAL ERROR MAP ISA INTERFACE

SYSTEM SOFTWARE FLOW CHART

CREATING DVD ERROR MAP

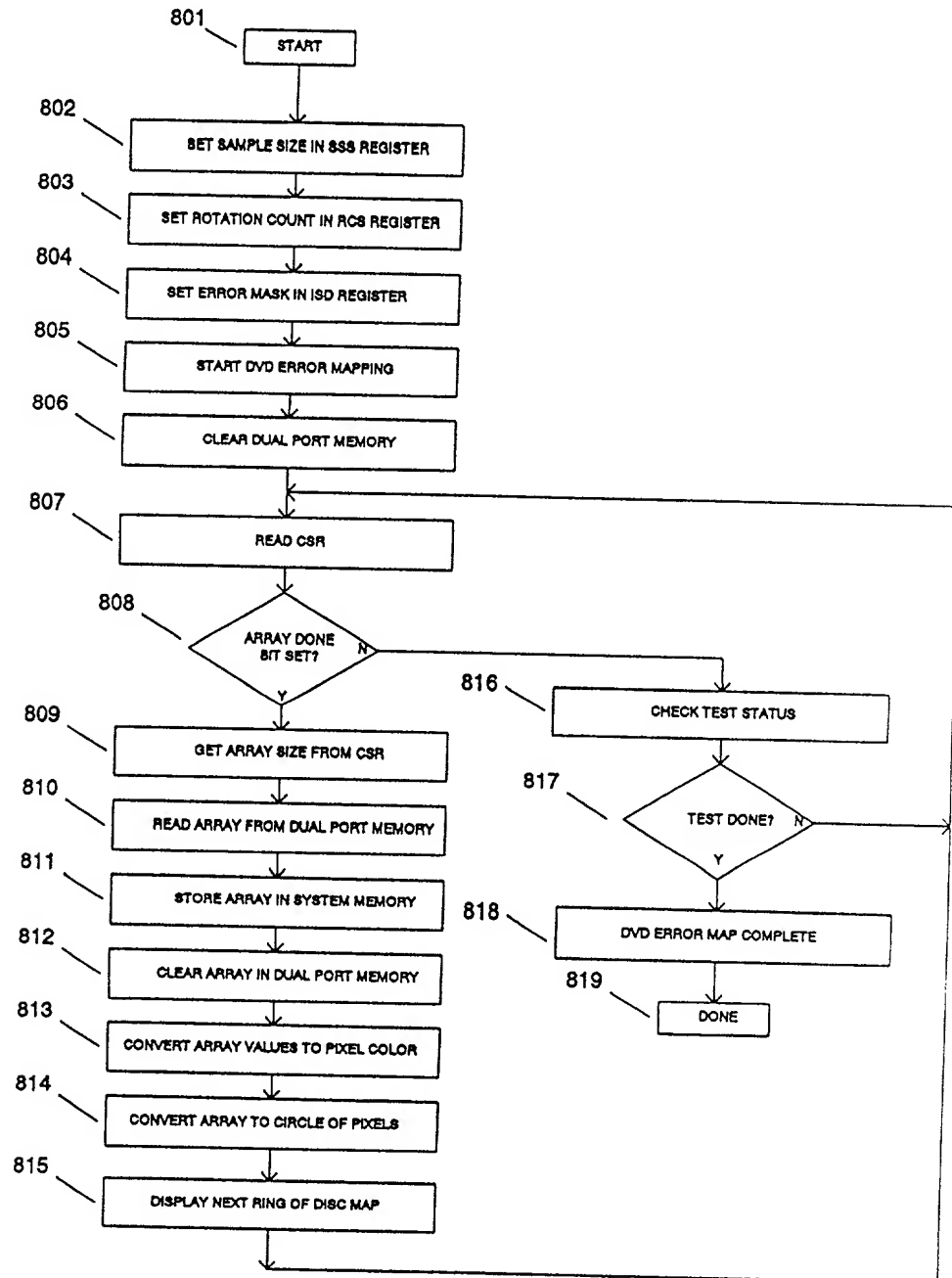


FIG. 8